

ENGINEERING CHANGE NOTICE **DART AEROSPACE LTD**

Date: 12.09.05	Job No.: ENG3107SEP	ADR Yes/No: N	ADR Date:	ECN #: 12- 643
Product No.: D212-664		Created By: [Signature]	Approved By: [Signature]	
Product Name: Crosstube		Checked By: [Signature]		

Distribution	Reqd	Resp	Initial / Date
Production Manager / Coord.	Y	LL/MF	
Purchasing Coord.	N		
Production Engineering Coord.	Y	DD	
Customer Technical Support	Y	MB/DS	
Customer Order Processing	N		

Distribution	Reqd	Resp	Initial / Date
DQA / QA Coord.	Y	PS	
QC Coordinator	Y	ED	
Customer Support	Y	SW/LM	
VP Marketing / BD	NY	AM	
Marketing	NY	AM	

Reason for Change:

Documents Affected:

Release:
D3189 Rev. C D412-664-249-B-3 **DSI 9629 Rev. A**
DSI 9629 Rev. A D412-664-245-D-3
D412-664-243-E-4 D412-664-145-D-3

PAPERWORK UPDATE ☐

PARTS MUST COMPLY ☐

PREVIOUS PARTS SATISFACTORY ☒

#	Quality Assurance Actions	Reqd	Resp	Notes	Complete
1	Notify Previous Customers	NY	MB	SEE BELOW.	
2	Notify Eurocopter France	N			
3					

#	Engineering Actions	Reqd	Resp	Notes	Complete
4	Required Documents/Drawings Under Review	N			
5	Update Master Document List (MDL)	Y	CP		
6	Update Product Compatability Matrix	N			
7	Create Eurocopter Form (FEE)	N			
8	Notify TC / FAA of Change	N			
9					

#	Document Control Actions	Reqd	Resp	Notes	Complete
10	Move Electronic Files/Design Journal	Y	KJ		12.09.06 [Signature]
11	Update Product Specification Files	Y	KJ		12.09.06 [Signature]
12	Update Approved/Preliminary Dwg PDF Files	Y	KJ		12.09.06 [Signature]
13	Update Document Record (DR)	N			
14	Update Product Development Summary	N			
15	Update QSI 021 and/or STC Approval List	N			
16	Create/Update Parts / STC Database	N			
17	Update / Verify ARC Database	N			
18	Create / Update Change Record Form / Item Card Database	Y	KJ		12.09.06 [Signature]
19	Create / Update PPP's	Y	KJ		
20	Red Decals required?	Y	KJ		
21	Update Document Control Database / Laminated Dwgs	N			
22	Update Grey Project / Electronic Binder PDF Files	Y	KJ		
23	Update D-Part/M-Drawing/DSI/DEO Master Binders	Y	KJ		
24					

Description / Action:

- D3189-1 & D3189-3 Chafing Shields updated to enlarge part, to facilitate installation
- DSI 9629 Rev. A created to inform customer how to replace new chafing shields
- DEO's created for crosstubes to show how new wearplates should be oriented on the crosstubes, also to reduce required torque on clamps
- CHG # UPDATED: D412-664-105 @ CHG 004, D412-664-203 @ CHG 009, D412-664-205 @ CHG 004, D412-664-209 @ CHG 004
D412-664-303 @ CHG 002
- Linda: DSI 9629 Rev. A needs to be sent to customer who bought the (3) D412-664-203 tubes with new chafing shield
- Existing crosstubes kits are OK to ship. Existing D3189-1/-3 chafing shields should be scrapped.
- When sending out replacement D3189-1/-3 Chafing Shields, the customer will need a copy of DSI 9629 Rev. A. Need some way to flag this in intuitive.
- Provide SOAC plates w/ copy of DSI 9629 A

ECN Verified & Complete: _____

Date: _____

ENGINEERING CHANGE NOTICE

DART AEROSPACE LTD

Date: 12.09.05	Job No.: ENG3107SEP	ADR Yes/No: N	ADR Date:	ECN #: 12- 643
Product No.: D212-664		Created By: CP	Approved By: JMP	
Product Name: Crosstube		Checked By: J		

Distribution	Reqd	Resp	Initial / Date
Production Manager / Coord.	Y	EL/MF	
Purchasing Coord.	N		
Production Engineering Coord.	Y	DD	
Customer Technical Support	Y	MB/DS	
Customer Order Processing	N		

Distribution	Reqd	Resp	Initial / Date
DQA / QA Coord.	Y	PS	
QC Coordinator	Y	ED	
Customer Support	Y	SW/LM	
VP Marketing / BD	Y	AM	
Marketing	Y	HM	

Reason for Change:

Documents Affected:

Release: D3189 Rev. C D412-664-249-B-3 DSI 9629 Rev. A
 DSI 9629 Rev. A D412-664-245-D-3
 D412-664-243-E-4 D412-664-145-D-3

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12	Update Approved/Preliminary Dwg PDF Files	Y	KJ		12.09.06
13	Update Document Record (DR)	N			
14	Update Product Development Summary	N			
15	Update QSI 021 and/or STC Approval List	N			
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17	Update / Verify ARC Database	N			
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20	Red Decals required?	Y	KJ		
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22	Update Grey Project / Electronic Binder PDF Files	Y	KJ		
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- PROVIDE SOAG PICTURES w/copy of DSI 9629.A

5/0 108983 Sept 10/12 Bm
 Fedex 901822642700

ECN Verified & Complete: _____

Date: _____

DRAWING NO. D412-664-243	TITLE CROSSTUBE ASSEMBLY (412 HI AFT)	REV. E	DART AEROSPACE LTD ENGINEERING ORDER		D.E.O. NO. D412-664-243-E-4	SHEET NO. SHEET 1 OF 3	SCALE NTS
DRAWN <i>JP</i>	CHECKED <i>JP</i>	MFG. APPR. <i>JP</i>	APPROVED <i>JP</i>	DE APPR. <i>JP</i>			
DATE 12.08.21	DATE 12.08.30	DATE 12.08.30	DATE 12/8/30	DATE 12.08.30			

PURPOSE:

REMOVED ABRASION STRIP IN FAVOR OF A THIN LAYER OF PROSEAL 890. UPDATE INSTALLATION OF CHAFING SHIELDS AND REDUCE TORQUE TO 40-50 IN-LBS. THIS ENGINEERING ORDER SUPERCEDES DEO D412-664-243-E-1.

CHANGE:

PARTS LIST IS AMENDED AS FOLLOWS:

IS:

Item	Qty -243	Part Number	Description
6	0	D2856-600-1009	ABRASION STRIP

WAS:

6	2	D2856-600-1009	ABRASION STRIP
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NOTES 2, 14, AND 16 ON SHEET 1 ARE AMENDED AS FOLLOWS:

IS:

- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
PRIME INSIDE AND OUTSIDE PER DART QSI 005 4.2
MASK UNDERSIDE OF CROSSTUBE AS SHOWN (HATCHED AREA)
PAINT OUTSIDE PER DART QSI 005 4.2
AFTER PAINTING, APPLY CLEAR COAT ON HATCHED AREA
- 14) APPLY A THIN COAT OF PROSEAL 890 ON INSIDE CONCAVE SURFACE OF D3189-1 CHAFING SHIELD AND LET CURE PER MANUFACTURER'S INSTRUCTIONS. INSTALL PROSEALED D3189-1 CHAFING SHIELD ONTO CROSSTUBE BY APPLYING A THIN COAT OF PROSEAL 890 ONTO CROSSTUBE. BE SURE TO ELIMINATE ANY AIR GAPS.
- 16) TORQUE CLAMPS ON D2896-1 SUPPORT 80 TO 100 IN-LB. **TORQUE CLAMPS ON D3189-1 CHAFING SHIELD 40 TO 50 IN-LB.**
ENSURE AT LEAST 1.5 THREADS SHOWING IN SAFETY AND THAT NUT HAS NOT BOTTOMED-OUT AFTER TORQUING.

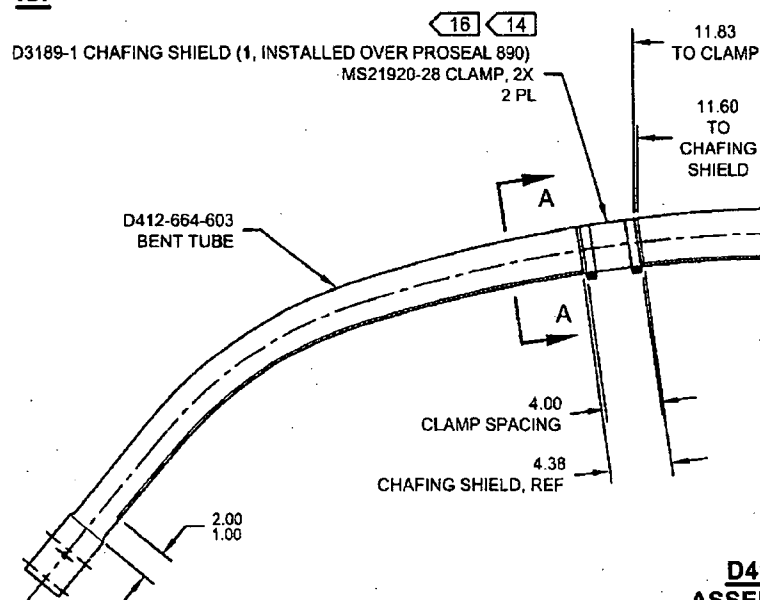
WAS:

- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
PRIME INSIDE AND OUTSIDE PER DART QSI 005 4.2
PAINT OUTSIDE PER DART QSI 005 4.2
- 14) INSTALL D2856-600-1009 ABRASION STRIPS WITH A 0.13 REF GAP ON BOTTOM SIDE OF CROSSTUBE PER QSI 035.
- 16) TORQUE CLAMPS 80 TO 100 IN-LB. ENSURE AT LEAST 1.5 THREADS SHOWING IN SAFETY AND THAT NUT HAS NOT BOTTOMED-OUT AFTER TORQUING.

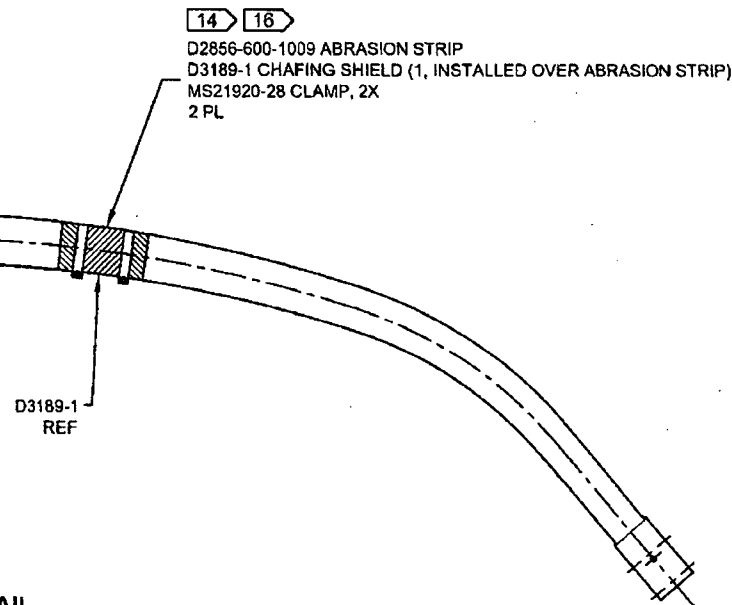
RELEASED
2012-09-04
JP

DRAWING NO. D412-664-243	TITLE CROSSTUBE ASSEMBLY (412 HI AFT)	REV. E	DART AEROSPACE LTD ENGINEERING ORDER	D.E.O. NO. D412-664-243-E-4	SHEET NO. SHEET 2 OF 3	SCALE NTS
DRAWN 92	CHECKED	MFG. APPR.	APPROVED	DE APPR.		
DATE 12.08.21	DATE 12.08.27	DATE 12.08.29	DATE 12.08.29	DATE 12.08.29		

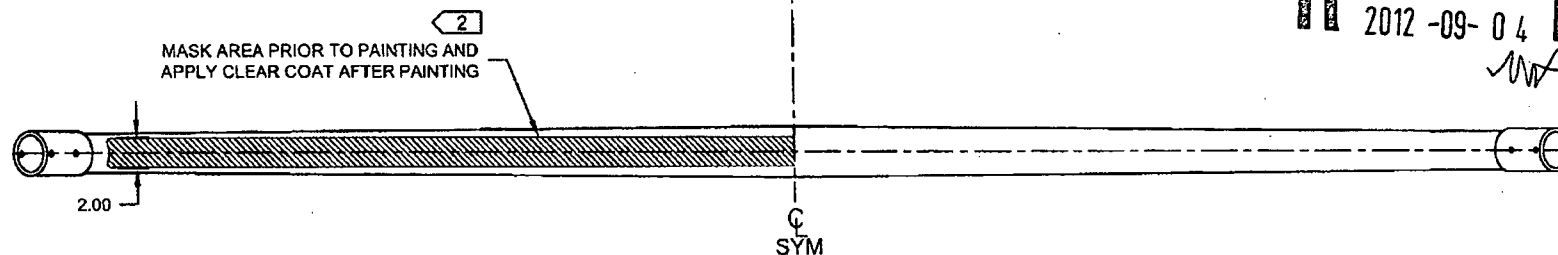
IS:



WAS:

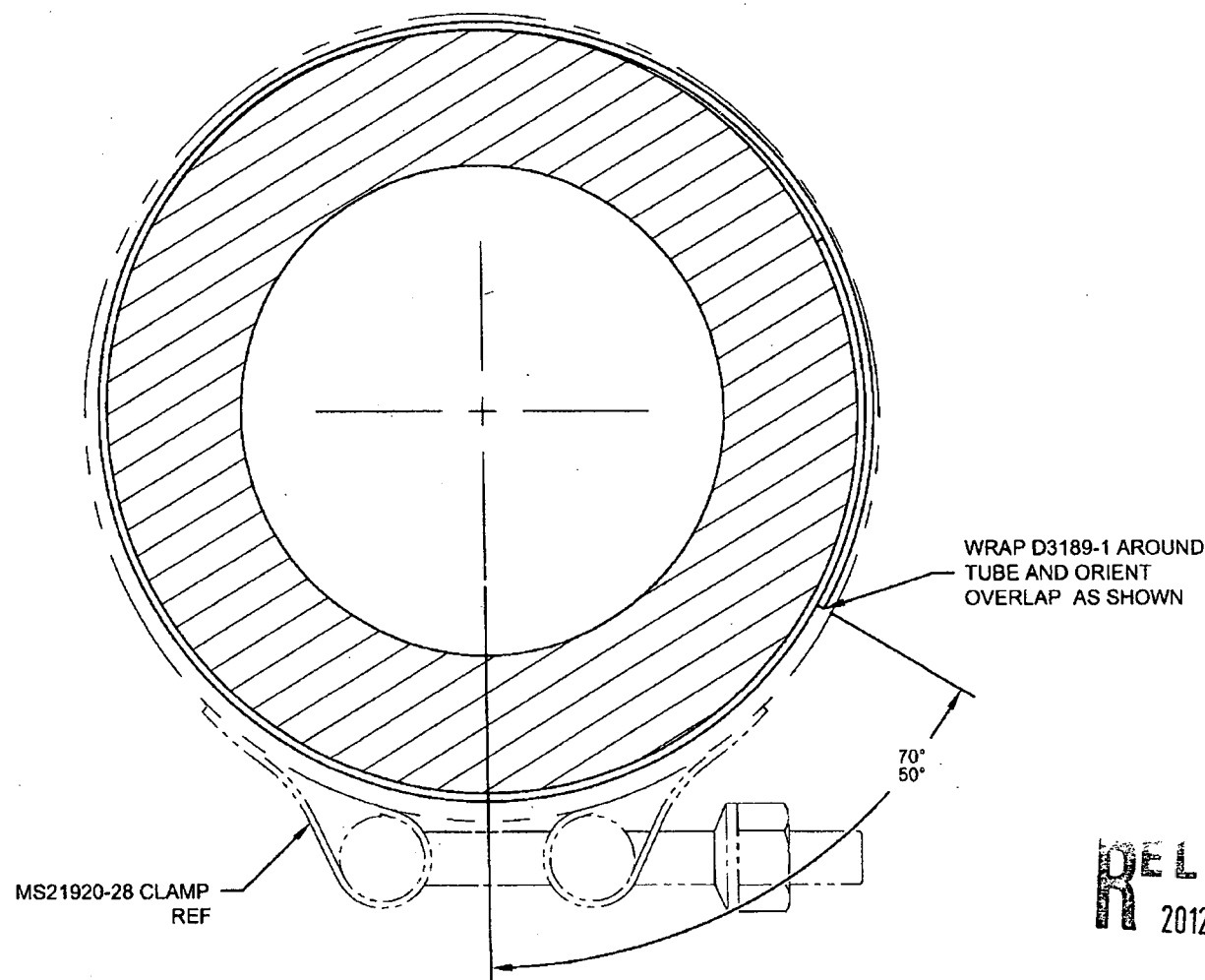


**D412-664-243
ASSEMBLY DETAIL**



RELEASED
2012-09-04

DRAWING NO. D412-664-243	TITLE CROSSTUBE ASSEMBLY (412 HI AFT)	REV. E	DART AEROSPACE LTD ENGINEERING ORDER	D.E.O. NO. D412-664-243-E-4	SHEET NO. SHEET 3 OF 3	SCALE NTS
DRAWN <i>MP</i>	CHECKED <i>MP</i>	MFG. APPR. <i>MP</i>	APPROVED <i>MP</i>	DE APPR. <i>MP</i>		
DATE 12.08.21	DATE 12.08.22	DATE 12.08.29	DATE 12.08.29	DATE 12.08.29	DATE 12.08.29	



SECTION A-A
CHAFING SHIELD DETAIL
VIEW ROTATED, NOT TO SCALE

RELEASED
2012-09-04
MP

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